

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Of:

BRADLEY M. ANDREAE

Application No.: 09/997,486

Filed: November 20, 2001

Group Art Unit: 3651

Examiner:

GROUNDING SYSTEM FOR  
ROTATING FIXTURES IN  
ELECTRICALLY CONDUCTIVE  
MEDIUMS

CERTIFICATE OF MAILING

)  
)  
) I hereby certify that this correspondence is *#3*  
) being deposited with the United States  
) Postal Service with sufficient postage as first  
) class mail in an envelope addressed to:  
) COMMISSIONER FOR PATENTS,  
) Washington, D.C. 20231, this *29th* day of  
) *January*, 2002.

)  
) *Christine S. Lewis* *1-29-02*  
) Christine S. Lewis Date

INFORMATION DISCLOSURE STATEMENT

BOX: NO FEE  
COMMISSIONER OF PATENTS  
Washington, D.C. 20231

Sir:

Applicant had the following U.S. patents for references during the preparation of the subject application. Additional known prior art is discussed in the application.

None of the references are believed to remotely suggest the chain suspension structure which rotatably supports the barrel and forms an electrical grounding of the barrel when immersed within a coating unit, as set forth in the above entitled application and particularly the claims thereof.

U.S. Patent 4,537,669 discloses a barrel for plating or coating of articles with concentric ring supports. It is directed to a novel discharge chute to specifically provide for appropriate discharge of the product in combination with a need to restrain the loss of liquid through the chute.

U.S. Patent 4,942,956 is owned by the present applicant in the above entitled application and relates to a structure which provides for stepped transfer of

RECEIVED  
OCT 10 2002  
TC 1700 MAIL ROOM

parts from and to various loading and unloading of parts at space location in an electrocoating systems.

U.S. Patent 5,012,918 discloses a side bar conveyor unit for transporting of a carriage with a sequential step movement for locating a workpiece between successive work stations. It discloses a distinctly separate and direct support of the articles without any special suspension system of interest.

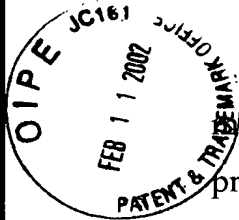
U.S. Patent 5,120,410, U.S. Patent 5,846,395, and U.S. Patent 4,544,475, U.S. Patent 5,096,564 illustrate rotating drives for use in electrocoating apparatus. Full copies of the patent were not received. They all have drive systems connected directly onto the drum and none appear to remotely suggest the structure of significance to grounded chain and barrel as the above entitled application.

U.S. Patent 5,348,637 discloses a barrel polishing machine submerged within an electrolyte with special electrodes applied to telescoped barrel members. The patent includes special electrodes providing for the power connection and fixed supports of the unit. A separate drive 32 is coupled through a suspension belt 33 and connects a drive motor to a barrel pulley connected to the shaft. The support structure holds the barrel and the drive system with only the lower end of the barrel immersed within the coating liquid as shown in Fig. 3, and the barrel bearings spaced from the liquid.

U.S. Patent 5,817,220 discloses a rotating electroplating cage of a specific construction. The support thereof is not identified and would not appear to remotely suggest suspension such as taught in the above entitled application.

U.S. Patent 5,851,368 is a small parts plating apparatus which rotatably supports the barrel with separate electrodes and with an integrated motor and battery drive for rotating of the barrel within an electrolyte. The unit is an integrated unit with a drive gear train for rotating the barrel.

U.S. Patent 5,391,277 is directed to a plating barrel which has an outer drive gear 13 which meshes with a gear 6 to provide a very special gear drive system.



U.S. Patent 5,433,834 discloses an apparatus for coating especially mounted a screw type conveyor for moving the parts through a coating barrel. It provides a single integrated unit.

The present invention was developed by the inventors in connection with a contract to build an E-coating unit and was first conceived and built during the new design and construction of the E-coating line. The structure with the rotating chain support power connections was first operated with E-coating of parts on or about January 23, 2001.

Respectfully submitted,

ANDRUS, SCEALES, STARKE & SAWALL, LLP

Eugene R. Sawall

Reg. No. 17.431

Andrus, Sceales, Starke & Sawall, LLP  
100 East Wisconsin Avenue, St. 1100  
Milwaukee, WI 53202  
(414) 271-7590  
Attorney Docket No: 720-00020